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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,206	02/17/2004	Seiichi Hyakutake	393032043700	1937

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EXAMINER

RUSSELL, CHRISTINA MARIE

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,206

Applicant(s)

HYAKUTAKE ET AL.

Examiner

Christina Russell

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-9, 11-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 10, 14 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 11-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
2. Third paragraph on page 12, of the specification, description of Figure 2 is being given and the reference character ch1 is used, however ch1 is not present in Figure 2.
3. Similarly, on page 13, end of the paragraph starting at the bottom of page 12, the reference character PIT (ch) is used but also does not appear in Figure 2.
4. On page 14, of the specification, the paragraph which begins "Next, it is determined whether..." discusses the steps portrayed in the flow chart of Figure 3 and then transitions to step 314 which does not appear in Figure 3, and continuing reference is made to step 314 in following paragraphs with no mention of Figure 4.
5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

7. In reference to Figure 1, reference number 34 is not mentioned in the specifications.

8. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by the US patent to Uchiyama (5,024,134).

11. In terms of claim 1, Uchiyama teaches of an electrical musical instrument comprising a body, a fingerboard (see Figure 1 and column 7, lines 60-61), a plurality of pitch designators on said fingerboard which are to be depressed (see column 4, lines 33-38, column 6, lines 18-30 and column 8, lines 11-19), timing elements (see column 5, lines 10-20, column 6, lines 1-6 and column 10, lines 9-14), a musical tone generator which creates musical tones according to the pitch designation and timing elements (see column 9, lines 35-43, column 12, lines 43-54, column 13, line 67 – column 14, line 24, and column 14, lines 30-41 and 48-52), effects elements to add variety to the tones, and a controller to provide control of said effects and pitch (see column 3, line 52 – column 4, line 21, column 5, lines 21-37 and 60-68, column 11, lines 6-16 and column 41, lines 3-12) such as a choking effect (see column 6, lines 7-17, column 9, lines 21-34, column 10, lines 46-52 and column 67, lines 30-39).

12. In terms of claim 2, which compares to claim 1 in all claimed elements except for the addition of the controller, varying the pitch during an effect, such as the choking or

bending effect. Uchiyama also teaches this variance of pitch (see all above references for claim 1).

13. Claim 3 again mimics claim 1 with the addition of an effects element such as a tremolo arm and an auto-choking controller. Uchiyama teaches of such an arm and also teaches of an automatic pitch extraction, and pitch and tone control function that is put into effect and changes said elements accordingly when either the arm or choking effect is used (see all references from claim 1 and column 8, lines 1-5, column 9, lines 21-31, column 10, lines 46-52, column 54, lines 50-60 and column 57, lines 60-65).

14. As for claims 5 and 6, dependent on claims 2 and 3, Uchiyama teaches all the above claimed elements, including the control of the effects provided by either the choking effect or the effects arm during multiple stages of the extracting and generating process (see column 43, lines 24-34, column 54, lines 37-60, and column 58, lines 45-55).

15. As for claims 7, 8 and 9 dependent on claims 1, 2 and 3, Uchiyama teaches all the above claimed elements of an electronic musical instrument, including a parameter setting effect for setting the highest possible pitch in accordance with a scale or chart of values (see column 9, lines 6-12, column 41, lines 3-12 and column 63, lines 37-45).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama in view of the US patent to Yoshida (4,951,545).

18. Uchiyama teaches all the above claimed elements of claims 1, 2 and 3 (see references above), except for the additional effect of vibrato, and the control of this element. Yoshida however does teach such an effect of generated tones (see column 1, lines 21-38, column 1, line 64 – column 2, line 8, column 12, lines 19-60 and column 13, lines 2-12 and 51-57). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate these similar inventions. Both inventions provide an electronic musical instrument with bodies, fingerboards, pitch detection and designation, and effect controls. Yoshida however teaches of an additional effect besides choking; Yoshida teaches vibrato. This gives the instrument the ability to generate more varied tones and pitches. Yoshida also states that adding additional features and effects, such as vibrato, also prompts the system to be more sensitive to the touch of the player, providing better detection of changes in pitch.

19. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama in view of the US patent to Szalay (5,717,155).

20. Uchiyama teaches all the above claimed elements of claims 1, 2 and 3, including the additional control during multiple stages (see references for claims 1-3 and claims 5 and 6), except for the ability to stop the choking effect. Szalay provides such a convenience and refers to it as pitch quantization (see column 1, lines 42-64, column 4, lines 18-22, column 14, lines 24-37 and column 15, lines 1-38). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to add this additional feature of Szalay's electronic musical apparatus, which detects pitches, to the similar electronic musical instrument of Uchiyama. Szalay states that the convenience of having a feature such as pitch quantization is that it provides protection against accidental changes in finger positions that might unintentionally change the pitch. The feature also provides the convenience of being able to be turned on or off depending on the preferences set forth by the player and effects and techniques they wish to achieve.

Allowable Subject Matter

21. Claims 4, 10, 14 and 18 are allowed.

22. The following is a statement of reasons for the indication of allowable subject matter:

23. In terms of claim 4, Uchiyama teaches all the similar elements present in claims 1 and 3 and Szalay teaches further choking effect control features but neither teaches the auto-choking controller operating along with the operation of the tremolo arm and providing instructions to start the effect and simultaneously change the effect. Szalay teaches the ability to turn off the choking effect but does not teach of an arm. Uchiyama teaches of such an arm but neither teaches the ability to control the effect with such detail and provide control in opposite directions of the operation of the arm and to be able to automatically return to the original pitch after the changes and shifts.

24. As for claim 10, Uchiyama teaches all the above claimed elements including the addition of a parameter-setting element (see claims 5 and 6), but again does not teach the extensive control over the auto-choking effect.

25. As for claim 14, Uchiyama again teaches all the above claimed elements similar to claims 1-3, and Yoshida teaches the feature of vibrato (see references of claims 11-13), but again neither teaches the detailed auto-choking controller.

26. Lastly, as for claim 18, Uchiyama again teaches the above claimed elements and Szalay teaches of said arm being operable in multiple stages and being able to be turned off when desired by the user (see references of claims 15-17), but neither inventor mentions the additional control of the auto-choking effect.

Conclusion

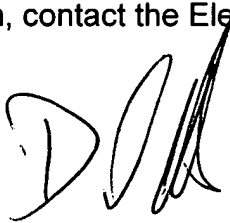
27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents to Barkan (3,742,114), Berg (4,372,187), Miller (6,111,179), Ishiguro (5,085,120) and Gasser (3,555,166).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Russell whose telephone number is 571-272-4350. The examiner can normally be reached on Mon-Fri, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CR
10/12/2005



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